Important Instructions on SE Projects

Scope of Project Work:

A mid-to-large-size software application for an enterprise level functionality primarily comprising components at presentation tier (Android/Web), business tier and data access tier.

Important dates:

Week	Timesheet Submission Dates	WSR Submission Dates	PMD Submission Dates
1	25-Mar-22	25-Mar-22	-
2	01-Apr-22	01-Apr-22	01-Apr-22 (ver 1.0)
3	08-Apr-22	08-Apr-22	-
4	15-Apr-22	15-Apr-22	15-Apr-22 (ver 2.0)
5	22-Apr-22	22-Apr-22	-
6	29-Apr-22	29-Apr-22	29-Apr-22 (ver 3.0)
7	6-May-22	6-May-22	-
8	12-May-22	12-May-22	12-May-22 (ver 4.0)

1. Team constitution and proposal submission: **Already completed**
2. Submit Design Document Draft: **15-Apr-2022**
3. Mid Semester Presentations: **Monday, 18-Apr-2022 (During Lab session)**
   Primarily it is intended to see your progress and give our feedback.
4. Final Project submission (includes following): **First Mon / Tue, after end of final exams.**
   a. Final Design Document
   b. Source Code, and relevant documentation pages
   c. Test reports
   d. PPT Presentation (to be done by respective groups as a part of final submission)
   e. All above to be made available through GitHub and relevant Google classroom submissions.

Mode of operation

- All submissions will be through Google classroom; appropriate assignments / links shall be made available on appropriate time.

- Project evaluation will primarily be done from two perspectives –
  - Design, which should be as detailed as possible and carries high weightage,
  - Implementation, which has a weightage lesser in comparison to design. It is expected that your team implements important parts of your design which should be approximately 40% of your total identified functionality.
  - More details available on next page under the section "Evaluation Parameters"
- You will be submitting weekly timesheets, weekly status report (WSR) and PMD to your TAs as already discussed. This will ensure that regular progress of each of the project teams (and team members therein) is in place.

Design guidelines

1. A design should diligently apply design principles discussed in lectures.
2. A clear-cut factoring of Presentation, Business Logic, and Data Access layers should be evident in your submitted system design architecture.
3. Furnish Design document using relevant UML diagrams, namely: Use case, class diagram, sequence diagram, and activity diagrams at the minimum.
4. Project should be large enough through which you are able to demonstrate your understanding of designing large scale application design.

Implementation guidelines

1. While design scope of the project could be larger (futuristic), for implementation you can trim down in terms of selected use cases (basic/core functionality).
2. You can use any combination of full stack development technologies but make sure that you have clear-cut factoring of Presentation, Business Logic, and Data Access Logic.
3. Use of good implementation and coding practices to be followed
4. Implementation should follow agile methodology along with good coding practices.
5. Proper documentation will be mandatory including the requirements / user stories, detailed software, and database design.
6. Also, produce appropriate documentation pages for classes that you may create in the process of your system design and implementation.
7. Report of your prototype implementation along with details of testing methodology should be submitted.

Evaluation Parameters

1. Size and complexity of system – Scalability of your proposed system.
2. Realistic to the real-world – in terms of the solutions that exist today and how your design and implementation is ready to adapt future changing technological challenges as well as changing scenario of user requirements.
3. Goodness of design and implementation – give reasons for your design and implementation choices / decisions clearly during your final presentation.
4. Goodness of applicable documents submitted by you.

Software Design related Key Items

1. Project scope based Functional Requirements
2. User Stories and Use Cases
3. User Interface / User experience (UI / UX) design
4. System Activity Diagram
5. Data-flow design
6. UML design - Use-case, Class, Sequence and other related UML diagrams.
7. ERD / DB Schema
8. Test suite / case along with testing plan.